

AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions and listings of claims in the application:

LISTING OF CLAIMS:

1. (original): A sliding door apparatus comprising:

a sliding door having a window and slidably disposed with respect to a body of a vehicle, the window having an opening/closing member that opens or closes the window to form an open area and a closed area in the window, the sliding door having a full-open position and an opening direction;

a foreign object detecting unit that detects whether a foreign object exists in the open area; and

a slide stopping unit that stops, upon the foreign object detecting unit detecting existence of the foreign object in the open area, sliding of the sliding door in the opening direction before the sliding door reaches the full-open position.

2. (original): The sliding door apparatus according to claim 1, wherein the opening/closing member is a window glass.

3. (original): The sliding door apparatus according to claim 1, wherein the foreign object detecting unit includes an optical detector that optically detects the existence of the foreign object.

4. (currently amended): The sliding door apparatus according to claim 3, wherein the optical detector includes

a light emitting unit that is arranged at one side of the window to emit light across the window; and

a light detecting unit that is arranged at another side of the window to detect the light emitted.

5. (currently amended): The sliding door apparatus according to claim 1, wherein the slide stopping unit includes

a stopping member that is pivotably provided on the sliding door, the stopping member having a retracted position and a protruded position; and

an abutting portion that is provided on the body, wherein

when the slide stopping unit is not activated, the stopper member is kept at the retracted position, and

when the slide stopping unit is activated, the stopper is set to a protruded position ~~to get stuck on for encountering~~ the abutting portion.

6. (original): The sliding door apparatus according to claim 1, wherein the slide door has an arrangement to open or close the slide door manually.

7. (currently amended): The sliding door apparatus according to claim 1, further comprising:

~~an a~~ door open/close switch that outputs a signal to open or close the slide door; and
an electric actuator that drives the slide door based on the signal.

8. (currently amended): The sliding door apparatus according to claim 7, wherein upon the foreign object detecting unit detecting existence of the foreign object in the open area, the slide stopping unit provides a control on the door open/close switch in such a manner that the door open/close switch outputs a signal that indicates the slide door not to be opened.

9. (currently amended): The sliding door apparatus according to claim 1, further comprising a window state detecting unit that detects a width of the open area and outputs a detection signal when the width is more than a predetermined value, wherein

upon receiving the detection signal, the foreign object detecting unit detects whether a foreign object exists in the open area.

10. (currently amended): The sliding door apparatus according to claim 9, wherein the predetermined value is ~~0~~ zero millimeter.

11. (new): The sliding door apparatus according to claim 1, wherein the foreign object detecting unit detects the foreign object before the foreign object is caught between the window and the body.

Amendment Under 37 C.F.R. § 1.111
U.S. Application No. 10/814,637

12. (new) The sliding door apparatus according to claim 1, wherein a position of the slide stopping unit is set so that a predetermined safe distance is ensured between a front side frame of the window and a pillar of the body.

13. (new) the sliding door apparatus according to claim 1, wherein the stopped sliding door is adopted to slide to the full-open position if the foreign object detecting unit detects that the detected foreign object is removed.